

AMENDMENTS TO THE SPECIFICATION

Please amend the Specification as follows:

Paragraph [0030] on page 16:

[0030] The term “C₁₋₆alkylidene” “C₁₋₆alkylene”, as used herein, refers to a substituted or unsubstituted, linear or branched saturated divalent radical consisting solely of carbon and hydrogen atoms, having from one to six carbon atoms, having a free valence “-“ at both ends of the radical.

Paragraph [0031] on page 16:

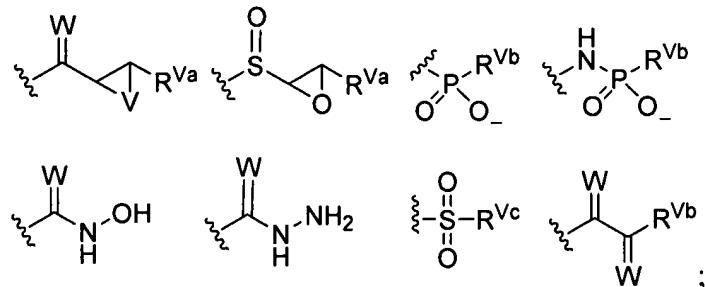
[0031] The term “C₂₋₆alkenylidene” “C₂₋₆alkenylene”, as used herein, refers to a substituted or unsubstituted, linear or branched unsaturated divalent radical consisting solely of carbon and hydrogen atoms, having from two to six carbon atoms, having a free valence “-“ at both ends of the radical, and wherein the unsaturation is present only as double bonds and wherein a double bond can exist between the first carbon of the chain and the rest of the molecule.

Paragraph [0106] bridging pages 37 and 38:

[0106] In certain embodiments, when R³ represents a phenyl group substituted with a moiety having the structure –P–Q, the following groups do not occur simultaneously as defined:

P is selected from the group consisting of substituted or unsubstituted C₄-C₈-alkylidene, C₄-C₈-alkenylidene, C₄-C₈-alkynylidene C₄-C₈ alkylene, C₄-C₈ alkenylene, C₄-C₈ alkynylene, and –R-T-U-, wherein R and U are independently absent or represent a C₂-C₇-alkylidene, a C₂-C₇-alkenylidene, or a C₂-C₇-alkynylidene C₂-C₇ alkylene, a C₂-C₇ alkenylene, or a C₂-C₇ alkynylene, and T represents O, S or NR^T, wherein R^T represents hydrogen, lower alkyl, lower alkenyl, lower alkynyl, aralkyl, aryl or heterocyclyl; and

Q is selected from the group consisting of:



and a boronic acid moiety; wherein W is O or S; V is O, S or –NR^{Vd}, wherein R^{Vd} is hydrogen, alkyl, ~~alkoxycarbonyl, aryloxycarbonyl,~~ ~~aryloxycarbonyl,~~ ~~alkoxycarbonyl,~~ ~~aryloxycarbonyl,~~

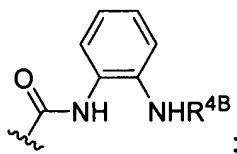
alkylsulfonylarylsulfonyl, alkylsulfonyl, arylsulfonyl, or aryl; R^{Va} is hydrogen, alkyl, alkenyl, alkynyl, or aryl; R^{Vb} is hydrogen, alkyl, aryl, alkoxy, aryloxy, amino, hydroxylamino, alkoxylamino or halogen; and R^{Vc} is hydrogen, alkyl, aryl, hydroxyl, alkoxy, aryloxy or amino.

Paragraph [0135] bridging pages 48 and 49:

[0135] xvii) compounds of the invention as described above and in classes and subclasses herein wherein R³ is an aryl or heteroaryl moiety substituted with a moiety having the structure -L-R^{4A} wherein L is a substituted or unsubstituted ~~C₄₋₈alkylidene or C₄₋₈alkenylidene~~ ~~C₄₋₈alkylene or C₄₋₈alkenylene~~ chain wherein up to two non-adjacent methylene units are independently optionally replaced by CO, CO₂, COCO, CONR^{Z1}, OCONR^{Z1}, NR^{Z1}NR^{Z2}, NR^{Z1}NR^{Z2}CO, NR^{Z1}CO, NR^{Z1}CO₂, NR^{Z1}CONR^{Z2}, SO, SO₂, NR^{Z1}SO₂, SO₂NR^{Z1}, NR^{Z1}SO₂NR^{Z2}, O, S, or NR^{Z1}; wherein each occurrence of R^{Z1} and R^{Z2} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl; and R^{4A} comprises a metal chelator;

Paragraph [0136] on page 49:

[0136] xviii) compounds of the invention as described above and in classes and subclasses herein wherein R³ is an aryl or heteroaryl moiety substituted with a moiety having the structure -L-R^{4A} wherein L is a substituted or unsubstituted ~~C₄₋₈alkylidene or C₄₋₈alkenylidene~~ ~~C₄₋₈alkylene or C₄₋₈alkenylene~~ chain wherein up to two non-adjacent methylene units are independently optionally replaced by CO, CO₂, COCO, CONR^{Z1}, OCONR^{Z1}, NR^{Z1}NR^{Z2}, NR^{Z1}NR^{Z2}CO, NR^{Z1}CO, NR^{Z1}CO₂, NR^{Z1}CONR^{Z2}, SO, SO₂, NR^{Z1}SO₂, SO₂NR^{Z1}, NR^{Z1}SO₂NR^{Z2}, O, S, or NR^{Z1}; wherein each occurrence of R^{Z1} and R^{Z2} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl; and R^{4A} is -C(=O)OR^{4B}, -C(=O)NHOR^{4B} or a moiety having the structure:



wherein each occurrence of R^{4B} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl;

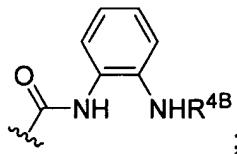
Paragraph [0137] on page 49:

[0137] xix) compounds of the invention as described above and in classes and subclasses herein wherein R³ is an aryl or heteroaryl moiety substituted with -(CH₂)_rN(R^{4C})Alk¹R^{4A}, wherein r is 0 or 1; R^{4C} is hydrogen, a nitrogen protecting group, alkyl, acyl, heteroalkyl, aryl or

heteroaryl; R^{4A} comprises a metal chelator; Alk¹ is a substituted or unsubstituted C₃₋₇alkylidene or C₃₋₇alkenylidene C₃₋₇alkylene or C₃₋₇alkenylene chain wherein up to two non-adjacent methylene units are independently optionally replaced by CO, CO₂, COCO, CONR^{Z1}, OCONR^{Z1}, NR^{Z1}NR^{Z2}, NR^{Z1}NR^{Z2}CO, NR^{Z1}CO, NR^{Z1}CO₂, NR^{Z1}CONR^{Z2}, SO, SO₂, NR^{Z1}SO₂, SO₂NR^{Z1}, NR^{Z1}SO₂NR^{Z2}, O, S, or NR^{Z1}; wherein each occurrence of R^{Z1} and R^{Z2} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl;

Paragraph [0138] bridging pages 49 and 50:

[0138] xx) compounds of the invention as described above and in classes and subclasses herein wherein R³ is an aryl or heteroaryl moiety substituted with -(CH₂)_rN(R^{4C})Alk¹R^{4A}, wherein r is 0 or 1; R^{4C} is hydrogen, a nitrogen protecting group, alkyl, acyl, heteroalkyl, aryl or heteroaryl; Alk¹ is a substituted or unsubstituted C₃₋₇alkylidene or C₃₋₇alkenylidene C₃₋₇alkylene or C₃₋₇alkenylene chain wherein up to two non-adjacent methylene units are independently optionally replaced by CO, CO₂, COCO, CONR^{Z1}, OCONR^{Z1}, NR^{Z1}NR^{Z2}, NR^{Z1}NR^{Z2}CO, NR^{Z1}CO, NR^{Z1}CO₂, NR^{Z1}CONR^{Z2}, SO, SO₂, NR^{Z1}SO₂, SO₂NR^{Z1}, NR^{Z1}SO₂NR^{Z2}, O, S, or NR^{Z1}; wherein each occurrence of R^{Z1} and R^{Z2} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl; and R^{4A} is -C(=O)OR^{4B}, -C(=O)NHOR^{4B} or a moiety having the structure:



wherein each occurrence of R^{4B} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl;

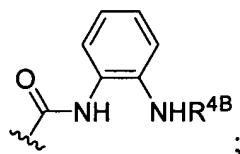
Paragraph [0139] on page 50:

[0139] xi) compounds of the invention as described above and in classes and subclasses herein wherein R³ is an aryl or heteroaryl moiety substituted with -(CH₂)_rN(R^{4C})C(=O)Alk²R^{4A}, wherein r is 0 or 1; R^{4C} is hydrogen, a nitrogen protecting group, alkyl, acyl, heteroalkyl, aryl or heteroaryl; R^{4A} comprises a metal chelator; Alk² is a substituted or unsubstituted C₃₋₆alkylidene or C₃₋₆alkenylidene C₃₋₆alkylene or C₃₋₆alkenylene chain wherein up to two non-adjacent methylene units are independently optionally replaced by CO, CO₂, COCO, CONR^{Z1}, OCONR^{Z1}, NR^{Z1}NR^{Z2}, NR^{Z1}NR^{Z2}CO, NR^{Z1}CO, NR^{Z1}CO₂, NR^{Z1}CONR^{Z2}, SO, SO₂, NR^{Z1}SO₂,

$\text{SO}_2\text{NR}^{Z1}$, $\text{NR}^{Z1}\text{SO}_2\text{NR}^{Z2}$, O, S, or NR^{Z1} ; wherein each occurrence of R^{Z1} and R^{Z2} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl;

Paragraph [0140] bridging pages 50 and 51:

[0140] xxii) compounds of the invention as described above and in classes and subclasses herein wherein R^3 is an aryl or heteroaryl moiety substituted with $-(\text{CH}_2)_r\text{N}(\text{R}^{4C})\text{C}(=\text{O})\text{Alk}^2\text{R}^{4A}$, wherein r is 0 or 1; R^{4C} is hydrogen, a nitrogen protecting group, alkyl, acyl, heteroalkyl, aryl or heteroaryl; Alk^2 is a substituted or unsubstituted $\text{C}_{3-6}\text{alkylidene}$ or $\text{C}_{3-6}\text{alkenylidene}$ $\text{C}_{3-6}\text{alkylene}$ or $\text{C}_{3-6}\text{alkenylene}$ chain wherein up to two non-adjacent methylene units are independently optionally replaced by CO, CO₂, COCO, CONR^{Z1}, OCONR^{Z1}, NR^{Z1}NR^{Z2}, NR^{Z1}NR^{Z2}CO, NR^{Z1}CO, NR^{Z1}CO₂, NR^{Z1}CONR^{Z2}, SO, SO₂, NR^{Z1}SO₂, SO₂NR^{Z1}, NR^{Z1}SO₂NR^{Z2}, O, S, or NR^{Z1}; wherein each occurrence of R^{Z1} and R^{Z2} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl; and R^{4A} is $-\text{C}(=\text{O})\text{OR}^{4B}$, $-\text{C}(=\text{O})\text{NHOR}^{4B}$ or a moiety having the structure:



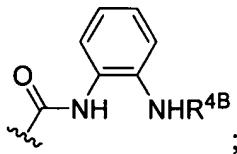
wherein each occurrence of R^{4B} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl;

Paragraph [0141] on page 51:

[0141] xxiii) compounds of the invention as described above and in classes and subclasses herein wherein R^3 is an aryl or heteroaryl moiety substituted with $-(\text{CH}_2)_r\text{N}(\text{R}^{4C})\text{C}(=\text{O})\text{Alk}^2\text{R}^{4A}$, wherein r is 0 or 1; R^{4C} is hydrogen, a nitrogen protecting group, alkyl, acyl, heteroalkyl, aryl or heteroaryl; R^{4A} comprises a metal chelator; Alk^2 is a substituted or unsubstituted $\text{C}_{3-6}\text{alkylidene}$ $\text{C}_{3-6}\text{alkylene}$ chain;

Paragraph [0142] on page 51:

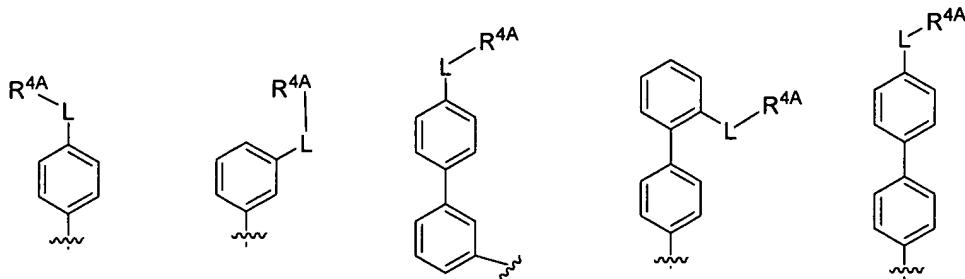
[0142] xxiv) compounds of the invention as described above and in classes and subclasses herein wherein R^3 is an aryl or heteroaryl moiety substituted with $-(\text{CH}_2)_r\text{N}(\text{R}^{4C})\text{C}(=\text{O})\text{Alk}^2\text{R}^{4A}$, wherein r is 0 or 1; R^{4C} is hydrogen, a nitrogen protecting group, alkyl, acyl, heteroalkyl, aryl or heteroaryl; Alk^2 is a substituted or unsubstituted $\text{C}_{3-6}\text{alkylidene}$ $\text{C}_{3-6}\text{alkylene}$ chain; and R^{4A} is $-\text{C}(=\text{O})\text{OR}^{4B}$, $-\text{C}(=\text{O})\text{NHOR}^{4B}$ or a moiety having the structure:



wherein each occurrence of R^{4B} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl;

Paragraph [0145] on page 52:

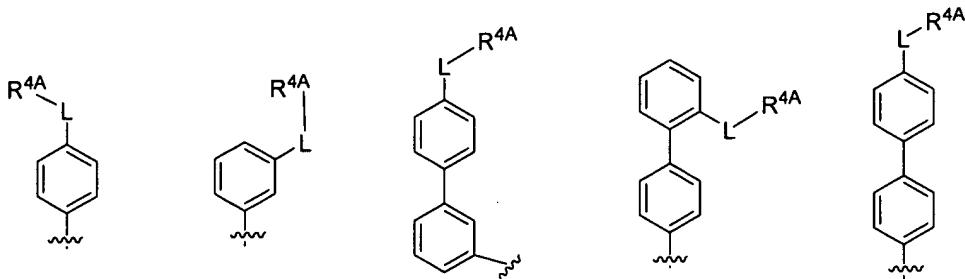
[0145] xxvii) compounds of the invention as described above and in classes and subclasses herein wherein R^3 is one of the following structures:



wherein L is a substituted or unsubstituted C_{4-8} alkylidene or C_{4-8} alkenylidene C_{4-8} alkylene or C_{4-8} alkenylene chain wherein up to two non-adjacent methylene units are independently optionally replaced by CO, CO₂, COCO, CONR^{Z1}, OCONR^{Z1}, NR^{Z1}NR^{Z2}, NR^{Z1}NR^{Z2}CO, NR^{Z1}CO, NR^{Z1}CO₂, NR^{Z1}CONR^{Z2}, SO, SO₂, NR^{Z1}SO₂, SO₂NR^{Z1}, NR^{Z1}SO₂NR^{Z2}, O, S, or NR^{Z1}; wherein each occurrence of R^{Z1} and R^{Z2} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl; and R^{4A} comprises a metal chelator;

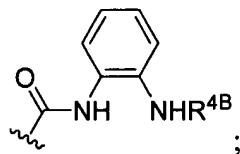
Paragraph [0146] bridging pages 52 and 53:

[0146] xxviii) compounds of the invention as described above and in classes and subclasses herein wherein R^3 is one of the following structures:



wherein L is a substituted or unsubstituted C_{4-8} alkylidene or C_{4-8} alkenylidene C_{4-8} alkylene or C_{4-8} alkenylene chain wherein up to two non-adjacent methylene units are independently optionally replaced by CO, CO₂, COCO, CONR^{Z1}, OCONR^{Z1}, NR^{Z1}NR^{Z2},

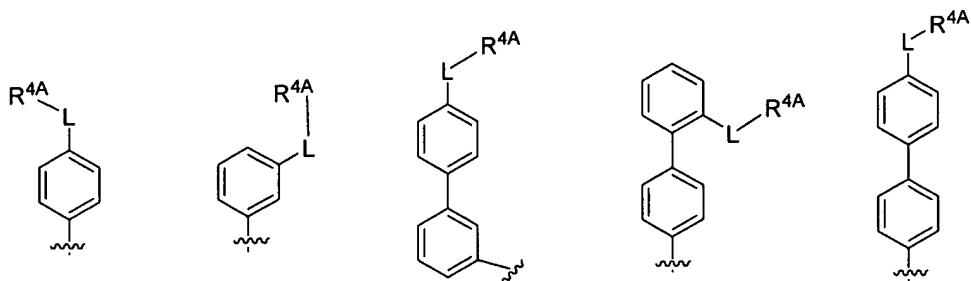
$\text{NR}^{Z1}\text{NR}^{Z2}\text{CO}$, NR^{Z1}CO , $\text{NR}^{Z1}\text{CO}_2$, $\text{NR}^{Z1}\text{CONR}^{Z2}$, SO , SO_2 , $\text{NR}^{Z1}\text{SO}_2$, $\text{SO}_2\text{NR}^{Z1}$, $\text{NR}^{Z1}\text{SO}_2\text{NR}^{Z2}$, O, S, or NR^{Z1} ; wherein each occurrence of R^{Z1} and R^{Z2} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl; and R^{4A} is $-\text{C}(=\text{O})\text{OR}^{4B}$, $-\text{C}(=\text{O})\text{NHOR}^{4B}$ or a moiety having the structure:



wherein each occurrence of R^{4B} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl;

Paragraph [0147] on page 53:

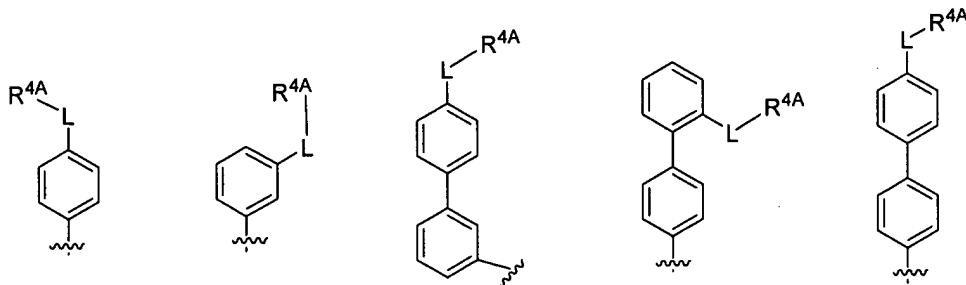
[0147] xxix) compounds of the invention as described above and in classes and subclasses herein wherein R^3 is one of the following structures:



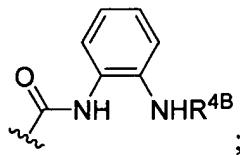
wherein L is $-(\text{CH}_2)_r\text{N}(\text{R}^{4C})\text{Alk}^1\text{R}^{4A}$, wherein r is 0 or 1; R^{4C} is hydrogen, a nitrogen protecting group, alkyl, acyl, heteroalkyl, aryl or heteroaryl; Alk^1 is a substituted or unsubstituted C_{3-7} alkylidene or C_{3-7} alkenylidene C_{3-7} alkylene or C_{3-7} alkenylene chain wherein up to two non-adjacent methylene units are independently optionally replaced by CO, CO₂, COCO, CONR^{Z1}, OCONR^{Z1}, NR^{Z1}NR^{Z2}, NR^{Z1}NR^{Z2}CO, NR^{Z1}CO, NR^{Z1}CO₂, NR^{Z1}CONR^{Z2}, SO, SO₂, NR^{Z1}SO₂, SO₂NR^{Z1}, NR^{Z1}SO₂NR^{Z2}, O, S, or NR^{Z1}; wherein each occurrence of R^{Z1} and R^{Z2} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl; and R^{4A} comprises a metal chelator;

Paragraph [0148] bridging pages 53 and 54:

[0148] xxx) compounds of the invention as described above and in classes and subclasses herein wherein R^3 is one of the following structures:



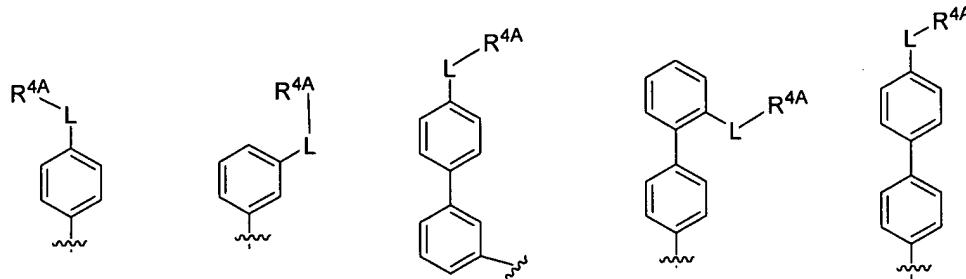
wherein L is $-(CH_2)_rN(R^{4C})Alk^1R^{4A}$, wherein r is 0 or 1; R^{4C} is hydrogen, a nitrogen protecting group, alkyl, acyl, heteroalkyl, aryl or heteroaryl; Alk¹ is a substituted or unsubstituted C₃₋₇alkylidene or C₃₋₇alkenylidene C₃₋₇alkylene or C₃₋₇alkenylene chain wherein up to two non-adjacent methylene units are independently optionally replaced by CO, CO₂, COCO, CONR^{Z1}, OCONR^{Z1}, NR^{Z1}NR^{Z2}, NR^{Z1}NR^{Z2}CO, NR^{Z1}CO, NR^{Z1}CO₂, NR^{Z1}CONR^{Z2}, SO, SO₂, NR^{Z1}SO₂, SO₂NR^{Z1}, NR^{Z1}SO₂NR^{Z2}, O, S, or NR^{Z1}; wherein each occurrence of R^{Z1} and R^{Z2} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl; and R^{4A} is -C(=O)OR^{4B}, -C(=O)NHOR^{4B} or a moiety having the structure:



wherein each occurrence of R^{4B} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl;

Paragraph [0149] on page 54:

[0149] xxxi) compounds of the invention as described above and in classes and subclasses herein wherein R³ is one of the following structures:

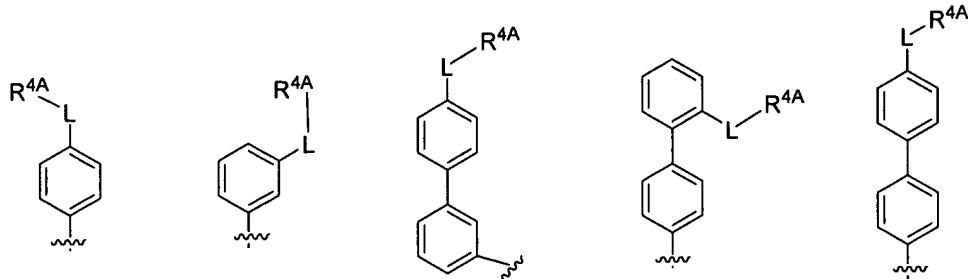


wherein L is $-(CH_2)_rN(R^{4C})C(=O)Alk^2R^{4A}$, wherein r is 0 or 1; R^{4C} is hydrogen, a nitrogen protecting group, alkyl, acyl, heteroalkyl, aryl or heteroaryl; Alk² is a substituted or unsubstituted C₃₋₆alkylidene or C₃₋₆alkenylidene C₃₋₆alkylene or C₃₋₆alkenylene chain wherein up to two non-adjacent methylene units are independently optionally replaced by CO, CO₂, COCO,

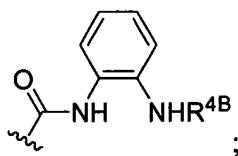
CONR^{Z1} , OCONR^{Z1} , $\text{NR}^{Z1}\text{NR}^{Z2}$, $\text{NR}^{Z1}\text{NR}^{Z2}\text{CO}$, NR^{Z1}CO , $\text{NR}^{Z1}\text{CO}_2$, $\text{NR}^{Z1}\text{CONR}^{Z2}$, SO , SO_2 , $\text{NR}^{Z1}\text{SO}_2$, $\text{SO}_2\text{NR}^{Z1}$, $\text{NR}^{Z1}\text{SO}_2\text{NR}^{Z2}$, O, S, or NR^{Z1} ; wherein each occurrence of R^{Z1} and R^{Z2} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl; and R^{4A} comprises a metal chelator;

Paragraph [0150] bridging pages 54 and 55:

[0150] xxxii) compounds of the invention as described above and in classes and subclasses herein wherein R^3 is one of the following structures:



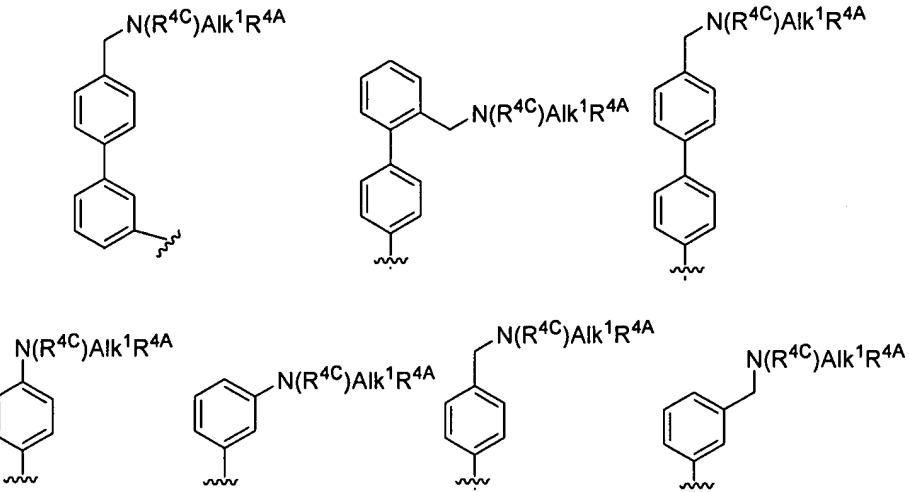
wherein L is $-(\text{CH}_2)_r\text{N}(\text{R}^{4C})\text{C}(=\text{O})\text{Alk}^2\text{R}^{4A}$, wherein r is 0 or 1; R^{4C} is hydrogen, a nitrogen protecting group, alkyl, acyl, heteroalkyl, aryl or heteroaryl; Alk^2 is a substituted or unsubstituted C_{3-6} alkylidene or C_{3-6} alkenylidene C_{3-6} alkylene or C_{3-6} alkenylene chain wherein up to two non-adjacent methylene units are independently optionally replaced by CO, CO₂, COCO, CONR^{Z1}, OCONR^{Z1}, NR^{Z1}NR^{Z2}, NR^{Z1}NR^{Z2}CO, NR^{Z1}CO, NR^{Z1}CO₂, NR^{Z1}CONR^{Z2}, SO, SO₂, NR^{Z1}SO₂, SO₂NR^{Z1}, NR^{Z1}SO₂NR^{Z2}, O, S, or NR^{Z1}; wherein each occurrence of R^{Z1} and R^{Z2} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl; and R^{4A} is $-\text{C}(=\text{O})\text{OR}^{4B}$, $-\text{C}(=\text{O})\text{NHOR}^{4B}$ or a moiety having the structure:



wherein each occurrence of R^{4B} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl;

Paragraph [0153] on page 56:

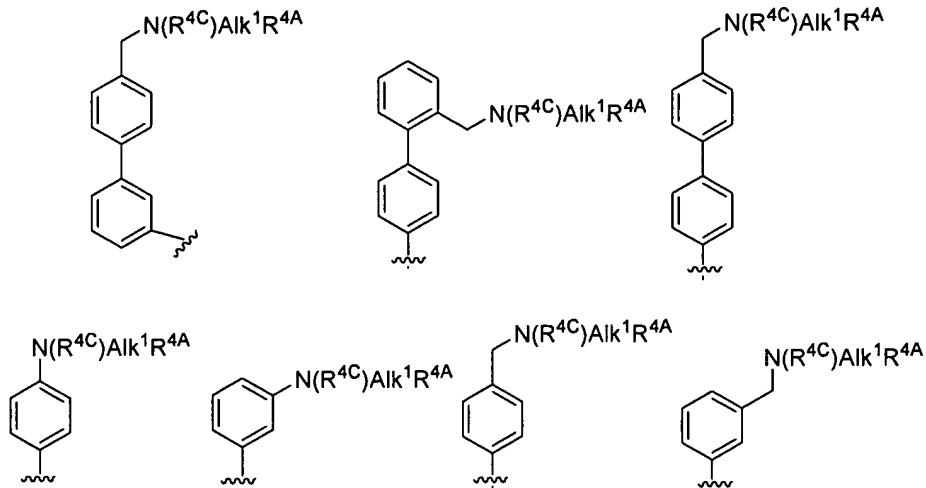
[0153] xxxv) compounds of the invention as described above and in classes and subclasses herein wherein R^3 is one of the following structures:



wherein R^{4C} is hydrogen, a nitrogen protecting group, alkyl, acyl, heteroalkyl, aryl or heteroaryl; Alk^1 is a substituted or unsubstituted C_{3-7} alkylidene or C_{3-7} alkenylidene C_{3-7} alkylene or C_{3-7} alkenylene chain wherein up to two non-adjacent methylene units are independently optionally replaced by CO, CO₂, COCO, CONR^{Z1}, OCONR^{Z1}, NR^{Z1}NR^{Z2}, NR^{Z1}NR^{Z2}CO, NR^{Z1}CO, NR^{Z1}CO₂, NR^{Z1}CONR^{Z2}, SO, SO₂, NR^{Z1}SO₂, SO₂NR^{Z1}, NR^{Z1}SO₂NR^{Z2}, O, S, or NR^{Z1}; wherein each occurrence of R^{Z1} and R^{Z2} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl; and R^{4A} comprises a metal chelator;

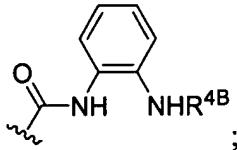
Paragraph [0154] on page 57:

[0154] xxxvi) compounds of the invention as described above and in classes and subclasses herein wherein R³ is one of the following structures:



wherein R^{4C} is hydrogen, a nitrogen protecting group, alkyl, acyl, heteroalkyl, aryl or heteroaryl; Alk^1 is a substituted or unsubstituted C_{3-7} alkylidene or C_{3-7} alkenylidene C_{3-7} alkylene or C_{3-7} alkenylene chain wherein up to two non-adjacent methylene units are independently

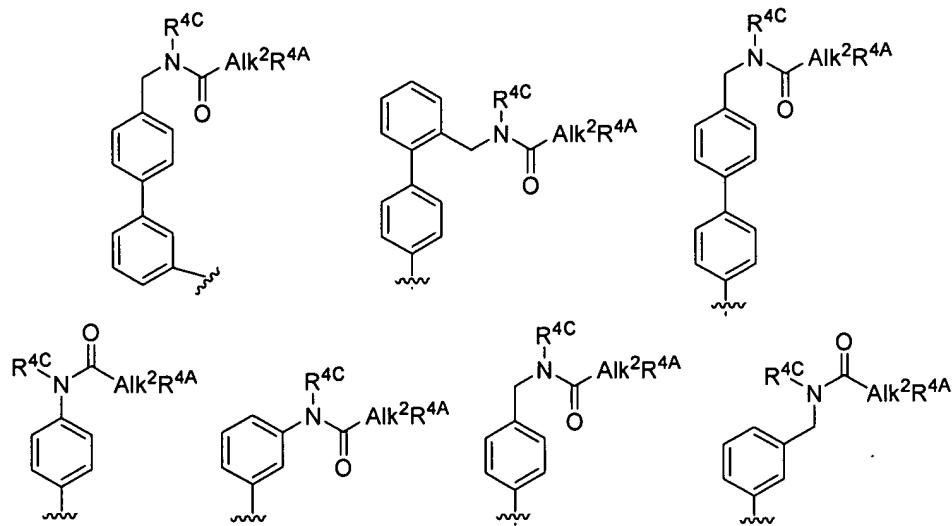
optionally replaced by CO, CO₂, COCO, CONR^{Z1}, OCONR^{Z1}, NR^{Z1}NR^{Z2}, NR^{Z1}NR^{Z2}CO, NR^{Z1}CO, NR^{Z1}CO₂, NR^{Z1}CONR^{Z2}, SO, SO₂, NR^{Z1}SO₂, SO₂NR^{Z1}, NR^{Z1}SO₂NR^{Z2}, O, S, or NR^{Z1}; wherein each occurrence of R^{Z1} and R^{Z2} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl; and R^{4A} is -C(=O)OR^{4B}, -C(=O)NHOR^{4B} or a moiety having the structure:



wherein each occurrence of R^{4B} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl;

Paragraph [0155] bridging pages 57 and 58:

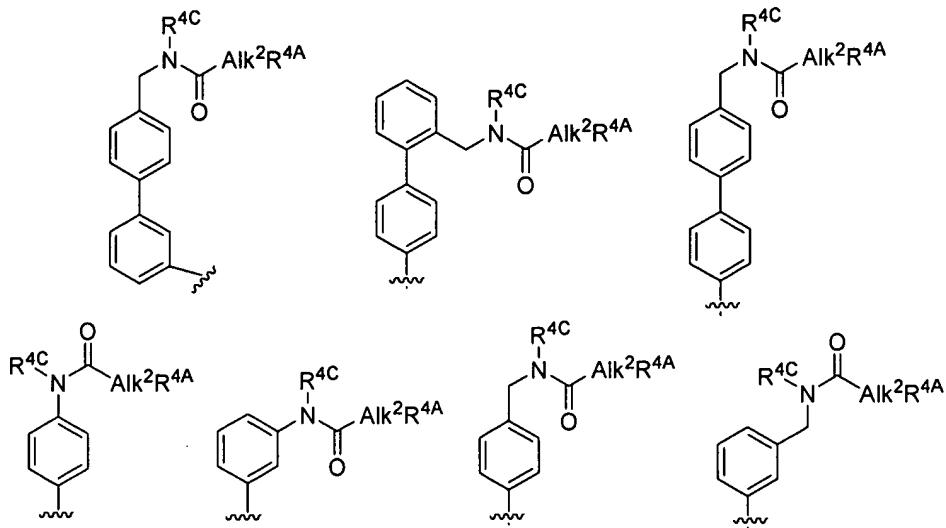
[0155] xxxvii) compounds of the invention as described above and in classes and subclasses herein wherein R³ is one of the following structures:



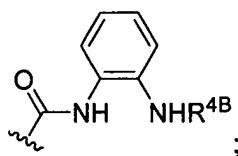
wherein R^{4C} is hydrogen, a nitrogen protecting group, alkyl, acyl, heteroalkyl, aryl or heteroaryl; Alk² is a substituted or unsubstituted C₃₋₆alkylidene or C₃₋₆alkenylidene C₃₋₆alkylene or C₃₋₆alkenylene chain wherein up to two non-adjacent methylene units are independently optionally replaced by CO, CO₂, COCO, CONR^{Z1}, OCONR^{Z1}, NR^{Z1}NR^{Z2}, NR^{Z1}NR^{Z2}CO, NR^{Z1}CO, NR^{Z1}CO₂, NR^{Z1}CONR^{Z2}, SO, SO₂, NR^{Z1}SO₂, SO₂NR^{Z1}, NR^{Z1}SO₂NR^{Z2}, O, S, or NR^{Z1}; wherein each occurrence of R^{Z1} and R^{Z2} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl; and R^{4A} comprises a metal chelator;

Paragraph [0156] bridging pages 58 and 59:

[0156] xxxviii) compounds of the invention as described above and in classes and subclasses herein wherein R³ is one of the following structures:



wherein R^{4C} is hydrogen, a nitrogen protecting group, alkyl, acyl, heteroalkyl, aryl or heteroaryl; Alk² is a substituted or unsubstituted C₃-C₆alkylidene or C₃-C₆alkenylidene C₃-C₆alkylene or C₃-C₆alkenylene chain wherein up to two non-adjacent methylene units are independently optionally replaced by CO, CO₂, COCO, CONR^{Z1}, OCONR^{Z1}, NR^{Z1}NR^{Z2}, NR^{Z1}NR^{Z2}CO, NR^{Z1}CO; NR^{Z1}CO₂, NR^{Z1}CONR^{Z2}, SO, SO₂, NR^{Z1}SO₂, SO₂NR^{Z1}, NR^{Z1}SO₂NR^{Z2}, O, S, or NR^{Z1}; wherein each occurrence of R^{Z1} and R^{Z2} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl; and R^{4A} is -C(=O)OR^{4B}, -C(=O)NHOR^{4B} or a moiety having the structure:



wherein each occurrence of R^{4B} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl;

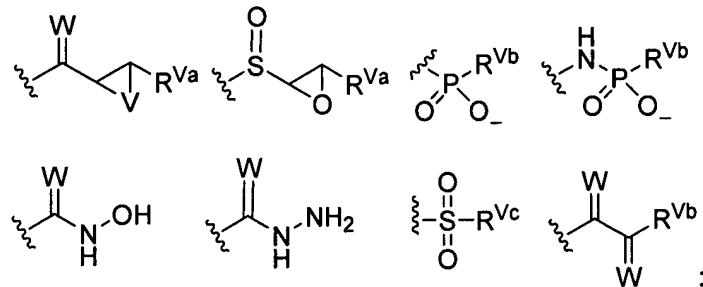
Paragraph [0178] on page 64:

[0178] In certain embodiments, when R⁴ represents a moiety -P-Q, the following groups do not occur simultaneously as defined:

P is selected from the group consisting of substituted or unsubstituted C₄-C₈alkylidene, C₄-C₈alkenylidene, C₄-C₈alkynylidene C₄-C₈alkylene, C₄-C₈alkenylene, C₄-C₈alkynylene, and -R-T-U-, wherein R and U are independently absent or represent a C₂-C₇alkylidene, a C₂-C₇

alkenylidene, or a C₂-C₇ alkynylidene C₂-C₇ alkylene, a C₂-C₇ alkenylene, or a C₂-C₇ alkynylene, and T represents O, S or NR^T, wherein R^T represents hydrogen, lower alkyl, lower alkenyl, lower alkynyl, aralkyl, aryl or heterocyclyl; and

Q is selected from the group consisting of:



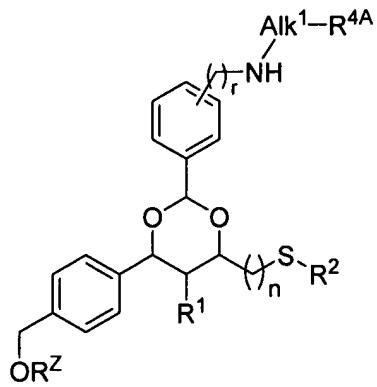
and a boronic acid moiety; wherein W is O or S; V is O, S or -NR^{Vd}, wherein R^{Vd} is hydrogen, alkyl, alkoxyxarbonyl, aryloxyxarbonyl, alkoxycarbonyl, aryloxycarbonyl, alkylsulfonylarylsulfonyl, alkylsulfonyl, arylsulfonyl, or aryl; R^{Va} is hydrogen, alkyl, alkenyl, alkynyl, or aryl; R^{Vb} is hydrogen, alkyl, aryl, alkoxy, aryloxy, amino, hydroxylamino, alkoxylamino or halogen; and R^{Vc} is hydrogen, alkyl, aryl, hydroxyl, alkoxy, aryloxy or amino.

Paragraph [0181] on page 65:

[0181] In certain embodiments, L is a substituted or unsubstituted C₄-alkylidene or C₄-alkenylidene C₄-alkylene or C₄-alkenylene chain wherein up to two non-adjacent methylene units are independently optionally replaced by CO, CO₂, COCO, CONR^{Z1}, OCONR^{Z1}, NR^{Z1}NR^{Z2}, NR^{Z1}NR^{Z2}CO, NR^{Z1}CO, NR^{Z1}CO₂, NR^{Z1}CONR^{Z2}, SO, SO₂, NR^{Z1}SO₂, SO₂NR^{Z1}, NR^{Z1}SO₂NR^{Z2}, O, S, or NR^{Z1}; wherein each occurrence of R^{Z1} and R^{Z2} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl.

Paragraph [0185] on page 66:

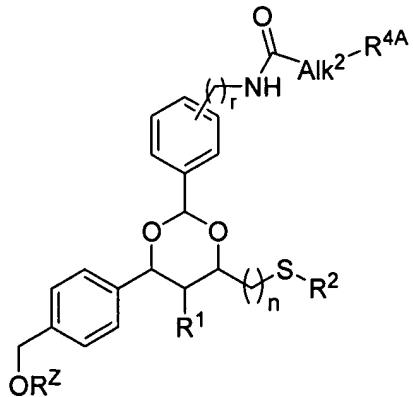
[0185] II) Compounds of the formula (and pharmaceutically acceptable derivatives thereof):



wherein R^1 , R^2 , R^4 , n and R^Z are as described in classes and subclasses herein; r is 0 or 1; Alk^1 is a substituted or unsubstituted C_{4-7} -alkylidene or C_{4-7} -alkenylidene C_{4-7} -alkylene or C_{4-7} -alkenylene chain wherein up to two non-adjacent methylene units are independently optionally replaced by CO, CO₂, COCO, CONR^{Z1}, OCONR^{Z1}, NR^{Z1}NR^{Z2}, NR^{Z1}NR^{Z2}CO, NR^{Z1}CO, NR^{Z1}CO₂, NR^{Z1}CONR^{Z2}, SO, SO₂, NR^{Z1}SO₂, SO₂NR^{Z1}, NR^{Z1}SO₂NR^{Z2}, O, S, or NR^{Z1}; wherein each occurrence of R^{Z1} and R^{Z2} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl; and R^{4A} comprises a metal chelator.

Paragraph [0187] bridging pages 66 and 67:

[0187] In certain embodiments, Alk^1 is a moiety having the structure $-C(=O)-Alk^2-$ and the compound has the structure:



wherein R^1 , R^2 , R^4 , n and R^Z are as described in classes and subclasses herein; r is 0 or 1; R^{4A} comprises a metal chelator and Alk^2 is a substituted or unsubstituted C_{3-6} -alkylidene or C_{3-6} -alkenylidene C_{3-6} -alkylene or C_{3-6} -alkenylene chain wherein up to two non-adjacent methylene units are independently optionally replaced by CO, CO₂, COCO, CONR^{Z1}, OCONR^{Z1}, NR^{Z1}NR^{Z2}, NR^{Z1}NR^{Z2}CO, NR^{Z1}CO, NR^{Z1}CO₂, NR^{Z1}CONR^{Z2}, SO, SO₂, NR^{Z1}SO₂, SO₂NR^{Z1}, NR^{Z1}SO₂NR^{Z2}, O, S, or NR^{Z1}.

$\text{NR}^{\text{Z1}}\text{SO}_2\text{NR}^{\text{Z2}}$, O, S, or NR^{Z1} ; wherein each occurrence of R^{Z1} and R^{Z2} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl.

Paragraph [0188] on page 67:

[0188] In certain exemplary embodiments, R^1 is hydrogen, phenyl or methyl; R^2 is hydrogen or a solid support unit; and R^2 is a substituted or unsubstituted alkyl or heteroalkyl moiety, or a substituted or unsubstituted aryl or heteroaryl moiety. In certain embodiments, Alk^2 is a substituted or unsubstituted C_{3-6} alkylidene C_{3-6} alkylene chain.

Paragraph [0189] on page 67:

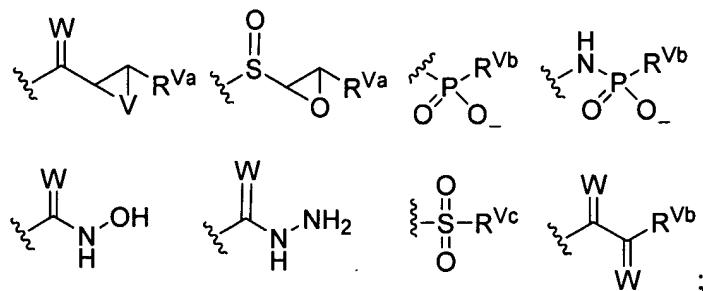
[0189] In certain embodiments, Alk^2 is a substituted or unsubstituted C_{3-6} alkylidene C_{3-6} alkylene chain; and $\text{R}^{4\text{A}}$ is as defined immediately above.

Paragraph [0196] on page 69:

[0196] In certain embodiments, when R^4 represents a moiety $-\text{P}-\text{Q}$, the following groups do not occur simultaneously as defined:

P is selected from the group consisting of substituted or unsubstituted C_{4-8} -alkylidene, C_{4-8} -alkenylidene, C_{4-8} -alkynylidene C_{4-8} alkylene, C_{4-8} alkenylene, C_{4-8} alkynylene, and $-\text{R}-\text{T}-\text{U}-$, wherein R and U are independently absent or represent a $\text{C}_2\text{-C}_7$ -alkylidene, a $\text{C}_2\text{-C}_7$ alkenylidene, or a $\text{C}_2\text{-C}_7$ alkynylidene $\text{C}_2\text{-C}_7$ alkylene, a $\text{C}_2\text{-C}_7$ alkenylene, or a $\text{C}_2\text{-C}_7$ alkynylene, and T represents O, S or NR^T , wherein R^T represents hydrogen, lower alkyl, lower alkenyl, lower alkynyl, aralkyl, aryl or heterocyclyl; and

Q is selected from the group consisting of:



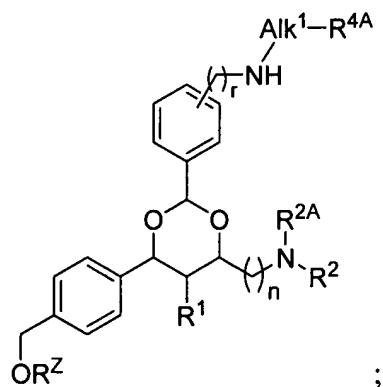
and a boronic acid moiety; wherein W is O or S; V is O, S or $-\text{NR}^{\text{Vd}}$, wherein R^{Vd} is hydrogen, alkyl, alkoxyxarboxyl, aryloxyxarboxyl, alkoxycarbonyl, aryloxycarbonyl, alkylsulfonylarylsulfonyl, alkylsulfonyl, arylsulfonyl, or aryl; R^{Va} is hydrogen, alkyl, alkenyl, alkynyl, or aryl; R^{Vb} is hydrogen, alkyl, aryl, alkoxy, aryloxy, amino, hydroxylamino, alkoxyamino or halogen; and R^{Vc} is hydrogen, alkyl, aryl, hydroxyl, alkoxy, aryloxy or amino.

Paragraph [0201] on page 71:

[0201] In certain embodiments, L is a substituted or unsubstituted ~~C₄-alkylidene or C₄-alkenylidene~~ C₄-alkylene or C₄-alkenylene chain wherein up to two non-adjacent methylene units are independently optionally replaced by CO, CO₂, COCO, CONR^{Z1}, OCONR^{Z1}, NR^{Z1}NR^{Z2}, NR^{Z1}NR^{Z2}CO, NR^{Z1}CO, NR^{Z1}CO₂, NR^{Z1}CONR^{Z2}, SO, SO₂, NR^{Z1}SO₂, SO₂NR^{Z1}, NR^{Z1}SO₂NR^{Z2}, O, S, or NR^{Z1}; wherein each occurrence of R^{Z1} and R^{Z2} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl.

Paragraph [0207] on page 72:

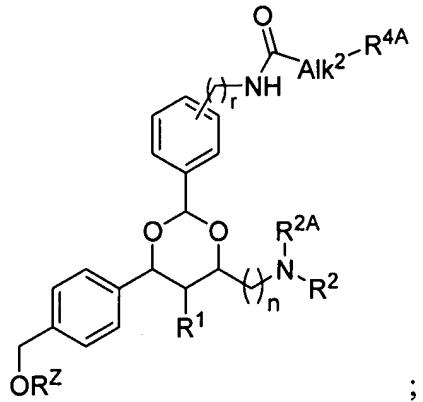
[0207] V) Compounds of the formula (and pharmaceutically acceptable derivatives thereof):



wherein R¹, R², R^{2A}, R⁴, n and R^Z are as described in classes and subclasses herein; r is 0 or 1; Alk¹ is a substituted or unsubstituted ~~C₄-alkylidene or C₄-alkenylidene~~ C₄-alkylene or C₄-alkenylene chain wherein up to two non-adjacent methylene units are independently optionally replaced by CO, CO₂, COCO, CONR^{Z1}, OCONR^{Z1}, NR^{Z1}NR^{Z2}, NR^{Z1}NR^{Z2}CO, NR^{Z1}CO, NR^{Z1}CO₂, NR^{Z1}CONR^{Z2}, SO, SO₂, NR^{Z1}SO₂, SO₂NR^{Z1}, NR^{Z1}SO₂NR^{Z2}, O, S, or NR^{Z1}; wherein each occurrence of R^{Z1} and R^{Z2} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl; and R^{4A} comprises a metal chelator.

Paragraph [0209] on page 73:

[0209] In certain embodiments, Alk¹ is a moiety having the structure -C(=O)-Alk²- and the compound has the structure:



wherein R^1 , R^2 , R^4 , n and R^Z are as described in classes and subclasses herein; r is 0 or 1; R^{4A} comprises a metal chelator and Alk^2 is a substituted or unsubstituted C_{3-6} alkylidene or C_{3-6} alkenylidene C_{3-6} alkylene or C_{3-6} alkenylene chain wherein up to two non-adjacent methylene units are independently optionally replaced by CO, CO₂, COCO, CONR^{Z1}, OCONR^{Z1}, NR^{Z1}NR^{Z2}, NR^{Z1}NR^{Z2}CO, NR^{Z1}CO, NR^{Z1}CO₂, NR^{Z1}CONR^{Z2}, SO, SO₂, NR^{Z1}SO₂, SO₂NR^{Z1}, NR^{Z1}SO₂NR^{Z2}, O, S, or NR^{Z1}; wherein each occurrence of R^{Z1} and R^{Z2} is independently hydrogen, alkyl, heteroalkyl, aryl, heteroaryl or acyl.

Paragraph [0210] on page 73:

[0210] In certain exemplary embodiments, R^1 is hydrogen, phenyl or methyl; R^Z is hydrogen or a solid support unit; and R^2 is a substituted or unsubstituted alkyl or heteroalkyl moiety, or a substituted or unsubstituted aryl or heteroaryl moiety. In certain embodiments, Alk^2 is a substituted or unsubstituted C_{3-6} alkylidene C_{3-6} alkylene chain.

Paragraph [0212] on page 74:

[0212] In certain embodiments, Alk^2 is a substituted or unsubstituted C_{3-6} alkylidene C_{3-6} alkylene chain; and R^{4A} is as defined immediately above.